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software meets business

**CONFERENCE FOR
SOFTWARE ARCHITECTURE**

ICM MÜNCHEN

3 - 7 FEBRUARY 2020

CONFERENCE PROGRAM

Early Bird Discounts
until 13 December 2019!

WWW.OOPCONFERENCE.COM

TALKS | TUTORIALS | NETWORKING



INTO THE UNKNOWN



Jutta Eckstein
Program Chair
OOP Conference

Jutta Eckstein has the Overall responsibility for the quality of the content of the OOP Conference. As an independent coach, consultant and trainer, she supports companies to facilitate an agile work environment.

Jutta Eckstein has the overall responsibility for the content quality of the OOP Conference. As independent coach, consultant and trainer, she helps companies to enable agility on an organizational level.

Hardly any other occupational field is as diverse and broadly diversified as that of Software Architects. At the same time, there are only a few industries that are so rare as dedicated to innovation as we are. Though, this is both a curse and a blessing: **Creating something new means a high responsibility** towards our customers, our employees and colleagues, and in the end also towards our society. In many countries of the world, our developments have an impact on economic growth, and global challenges such as climate change are supposed to be solved with the help of IT technologies. As a consequence, IT is seen as potential vehicle for a better world that requires exploring new solutions and ways. But: If you pursue your profession as a software architect responsibly today, you have to see the bigger picture and look beyond your daily business. The touch points between IT and „normal life“ are already too diverse, plus, there is a great influence of algorithms and

MISSION: SHAPING THE FUTURE

IT technology on our society. This is also one reason why demands for ethical rules in IT have been increasingly moved the fore. They range from ethical core principles to a Hippocratic oath for IT professionals. However, what all ideas have in common, is that IT specialists need to develop a greater awareness of the use of their code should. For our profession, this means an enormous challenge for each and every one of us – we are no longer „just engineers and craftsmen“, we are faced with ethical and philosophical questions. At the OOP 2020, we would like to take up the discourse about an extended understanding of IT and, in addition to concentrated knowledge, we would also like to provide inspiration and impulses for thought.

Our eleven tracks chairs together with our 95 reviewers from the developer community have designed a program for this purpose choosing from a total of 410 submissions. We were able to include approximately 170 presentations in the OOP 2020 program. There will also be new tracks this year, including „Agile Enterprise Architecture“, „DevOps & Continuous Everything“ and „Modern Programming & C++17/C++20“.

This year, I am especially looking forward to the track „Fusion: IT-Future-Society“, in which we would like to inspire you to think in new directions with (un)appropriate lectures. Plus, on the agenda are social issues topics, such as how to deal with critical-classified IT systems for elections. As every year, you are welcome to join the practice-oriented lectures and workshops at the OOP conference. Around 220 prestigious national and international speakers looking forward to seeing you in Munich and are happy to share with you their knowledge, enthusiasm and perhaps also their concerns around the topics Software Architecture, Product Discovery and Business Share Agility. I am already very excited about the next OOP and look forward to meeting you at the conference!

Best regards,
Jutta Eckstein
Program Chair OOP Conference

MONDAY, 03 FEBRUARY 2020 | TUTORIALS



10.00 am – 1.00	Mo 1 – Full Day Kill Legacy Code – wie man alten Code wieder wartbar bekommt Christian Fischer Carsten Thureau	Mo 2 – Full Day High Tech Metrics For Low Tech Boards – How To Set Your Teams Free Michael Mahlberg	Mo 3 – Full Day Wenn's richtig dicke kommt – Krisensituationen in der IT meistern Thomas Ronzon Ralph Miarka Veronika Kotrba	Mo 4 – Full Day Domain-Driven-Design-Tutorial: Strategisches Design und Context Mapping Henning Schwentner	Mo 5 – Half Day Was macht Machine Learning anders? Oliver Zeigermann	Mo 6 – Half Day Agile Motivation In Action – Concrete Measures To Translate Autonomous Motivation Into Practice Maren Baermann	Mo 7 – Half Day Into The Unknown Of Design For Testability Peter Zimmerer	Mo 8 – Half Day Der Architektur-baukasten – Meine Rolle als Architekt und welche Werkzeuge ich dafür benötige Michael Stal
11.30 am – 12.00 am	Coffee Break							
1.00 pm – 2.00 pm	Lunch							
2.00 pm – 5.00 pm	Continuation Mo 1 – Full Day Kill Legacy Code – wie man alten Code wieder wartbar bekommt Christian Fischer Carsten Thureau	Continuation Mo 2 – Full Day High Tech Metrics For Low Tech Boards – How To Set Your Teams Free Michael Mahlberg	Continuation Mo 3 – Full Day Wenn's richtig dicke kommt – Krisensituationen in der IT meistern Thomas Ronzon Ralph Miarka Veronika Kotrba	Continuation Mo 4 – Full Day Domain-Driven-Design-Tutorial: Strategisches Design und Context Mapping Henning Schwentner	Mo 9 – Half Day Sicherheit von Webanwendungen: Aktuelle Entwicklungen Jan Jürjens	Mo 10 – Half Day DevOps Culture Simulation (With Lego And Chocolate Game) Dana Pylayeva	Mo 11 – Half Day Selbstführung mit The Responsibility Process™ Henning Wolf Nadine Wolf	Mo 12 – Half Day Agile Requirements Engineering Christof Ebert
3.30 pm – 4.00 pm	Coffee Break							
5.15 pm – 6.00 pm	Keynote: Axel Grosse (Axway): Kommen ein Architekt, ein UXer und ein Innovator in eine Software Schmiede ...							
Nightschools 6.30 pm – 8.00 pm	Nmo 1 Event-Oriented – Raus aus der Domänenmodell-Falle Ralf Westphal	Nmo 2 Testcontainers – Integrationstesten mit Docker leicht gemacht Stefan Hildebrandt	Nmo 3 Engaged Strategy Development Using Liberating Structures Maryse I. Meinen	Nmo 4 Scrum@Scale – Systemische Sicht und Werkzeug für die agile Organisation Jürgen Dittmar Edgar Rodehack	Nmo 5 Growing Leadership Agility – Intent & Understanding To Avoid Agile Transformation Failure Mike Leber			

	Modern Architecture – Known & Unknown	Software Architecture Maintenance & Evolution	Trends & Techniques	Business Agility	Agile Going Enterprise Architecture? Or Vice Versa?	Testing & Quality	Product Discovery, Innovation & User Experience	DevOps & Continuous Everything	Social Integration
9.00 am – 10.30 am	Di 1.1 Freie Fahrt für die Reisendeninformation mit Kafka Streams Uwe Eisele Axel Löhn	Di 2.1 1) Codeballast über Bord?! Erfahrungen aus der Identifikation von nutzlosem Code und dem Umgang damit Tobias Röhm 2) Libs, Lizenzen, Lösungen – Tipps zum Umgang mit Third-Party Libraries Thomas Ronzon	Di 3.1 1) Remote Mob Testing: Es geht auch über die Distanz! Mira Kottmann 2) The Oligopoly. What Is The Right Mix Of Test Automation Tools In A Software Development Company? Anastasia Mikitenko	Di 4.1 1) Warum Ihre Teams mit Scrum scheitern werden Marc Bless 2) Wie flankiert man den nötigen Wandel so, dass er auch funktioniert? Christoph Steinhauer Ralf Kruse	Di 5.1 Praktisches DDD Top-Down angewendet – Strategic Designs für Bounded Contexts Andreas Hinkelmann	Di 6.1 1) Ein paar Millionen Worte später – Text Analytics für Software-Qualitätssicherung in der Praxis Henning Femmer 2) Schwarmintelligenz im Testing – Kollaborative Testmethoden in der Praxis Benedikt Wörner Katharina Warak	Di 7.1 1) Ein Tag Offroad – „Innovation And Improvement“ im Software Development Center Gee Fung Sit Felix Wanie 2) Entscheidungen unter Unsicherheit – Planung in agilen Teams Harald Müller	Di 8.1 Missverständnisse über Continuous Delivery Eberhard Wolff	Di 9.1 Agile Motivation – Why Agility Rocks! Maren Baermann
10.30 am – 11.00 am	Coffee Break								
11.00 am – 12.00 am	Keynote: Anita Sengupta (University Of Southern California): From Flying Cars To Humans On Mars – The Future Of Transportation								
12.00 am – 2.00 pm	Lunch								
2.00 pm – 2.45 pm	Di 1.2 Holistische Sicherheit für Microservice-Architekturen Mario-Leander Reimer	Di 2.2 The Changing Face Of ETL: Event-Driven Architectures For Data Engineers Robin Moffatt	Di 3.2 Entropy & Organizational Design – Three Examples Uli Hitzel	Di 4.2 The Business Case Of (Daily) Journaling Cosima Laube	Di 5.2 VUCA und die Neudefinition der Rolle des Unternehmensarchitekten bei Lufthansa Eldar Sultanow Carsten Breithaupt	Di 6.2 (Machine) Learning From Failures Marco Achtziger Gregor Endler	Di 7.2 „Team in a box“: Agilität und User-Centered Design konsequent leben Luisa Lucius Nicolas Behle	Di 8.2 Continuous Integration? I Don't Think That Word Means What You Think It Means Michael Mahlberg	Di 9.2 MINDset THE GAP – Verständnisse und Missverständnisse zum Thema Mindset Stefan Zumbrägel Henning Wolf
3.00 pm – 3.45 pm	Keynote: Kai Wähler (Confluent): The Rise Of Event Streaming – Why Apache Kafka Changes Everything								
3.45 pm – 4.15 pm	Coffee Break								
4.15 pm – 5.15 pm	Di 1.3 Lost In Transaction? Strategies To Manage Consistency In Distributed Systems Bernd Rucker	Di 2.3 Sich selbst im Weg stehen – welche Architekturfehler Wartung und Erweiterungen schwierig machen Michael Stal	Di 3.3 Continuous Requirements Engineering – der Kreislauf ins Unbekannte Mick Hohmann	Di 4.3 Mit KPIs zum Agilen Erfolg Markus Wissekall Stefan Kinigadner	Di 5.3 Digitale Ökosysteme beginnen dort, wo die Komfortzone aufhört Matthias Naab Marcus Trapp Matthias Koch	Di 6.3 Kosten-Nutzen-Berechnung von Qualitätsanalysen – Erfahrungen bei der Munich Re Elmar Juergens Uwe Proft	Di 7.3 Im Stich gelassen? Gernot Starke	Di 8.3 IoT im DevOps-Zeitalter: Wie funktioniert das? Florian Bader Thomas Rümmler	Di 9.3 Kommunikation für Software-Entwickler und alle anderen Jens Schauder
5.15 pm – 5.45 pm	Coffee Break								
5.45 pm – 6.45 pm	Di 1.4 API Design Strategie – Der ultimative Survival Guide Lars Röwekamp	Di 2.4 Langlebige Software-Architekturen – ohne Schulden, die Jahrzehnte überdauern Carola Lilienthal	Di 3.4 House of Agile Testing – was gilt es im Rahmen einer agilen Transformation zu beachten Thomas Karl Nico Liedl	Di 4.4 Teams Self-Selection – Getting Ready For The Unknown Dana Pylayeva	Di 5.4 Eher geht ein Kamel durch ein Nadelöhr als eine Bank in die Cloud... Peter Schnell	Di 6.4 TDD 2.0 – Situationsbezogen test-first implementieren Ralf Westphal	Di 7.4 solutionlab – Fusion von Innovation und Kulturwandel im Unternehmen Anke Nehrenberg Michael Darsow Johannes Mainusch	Di 8.4 Zehn Jahre DevOps-Bewegung – ein Rück- und Ausblick Konstantin Diener	Di 9.4 Wissenschaftlich belegt: Wohlfühl-Chefs führen erfolgreicher Ralph Miarka Veronika Kotrba
7.00 pm – 8.00 pm	„Der ultimative IT-Stammtisch“ Moderation: Nicolai Josuttis								
from 8.00 pm	Welcome Reception								

	Modern Architecture – Known & Unknown	Software Architecture Maintenance & Evolution	Trends & Techniques	Business Agility	Into The Unknown: Where No Software Engineer Has Gone Before	Fusion: IT-Future-Society	Product Discovery, Innovation & User Experience	Modern Programming & C++17/C++20	Social Integration
9.00 am – 10.30 am	Mi 1.1 1) Homebrew Robocars – eine Plattform für Research, Development und Fortbildung Andreas Graf 2) Die Rolle von Architektur im Zeitalter von KI und autonomen Systemen Matthias Naab Dominik Rost	Mi 2.1 1) Täglich grüßt das Murmeltier: Wiederverwendung immer wieder neu Klaus Marquardt Frank Della Contrada 2) Catch-22: Wie verbessert man nicht (mehr) änderbare Software-Systeme? Herbert Dowalil	Mi 3.1 1) It's Dangerous To Go Alone: Tools For Turning The Tide Bonnie Aumann 2) 193 Easy Steps To DevOpsing Your Monolith Cat Swetel	Mi 4.1 Die 12xFs der Fairänderung für Ihre Agile Evolution Veronika Kotrba Ralph Miarka	Mi 5.1 1) Ask Our Live AI Bot Hologram How She/He/It Feels In Any Language: Reports From The Frontiers Of Mixe Tania Peitzker 2) Industrial AI Enables Digital Companions Rebecca Johnson Siggie Duell	Mi 6.1 Digitale Ethik mal pragmatisch: Wie man gut und gleichzeitig erfolgreich sein kann Stefan Bente Kornelius Fuhrer	Mi 7.1 1) Domain Prototyping oder Design Is How It Works Tobias Goeschel 2) Business Visualisierung – eine kreative Reise in die Welt von Role Model Canvas und Co. Christian Botta Daniel Reinold	Mi 8.1 Kotlin Coroutine Deep Dive Thomas Künneth	Mi 9.1 Entscheiden mit Werwölfen und Zombies Fabian Schiller Emel Siegel
10.30 am – 11.00 am	Coffee Break								
11.00 am – 11.45 am	Mi 1.2 Functional Architecture In Action Michael Sperber	Mi 2.2 Leichtgewichtige Software-Architektur mit Architecture Decision Records und Qualitätsszenarien Johannes Dienst	Mi 3.2 Agile EAM ist wie ein schwarzer Schimmel Annegret Junker	Mi 4.2 Erfahrungsbericht: Umstellung des gesamten Unternehmens auf eine agile soziokratische Organisation Johannes Bergsmann	Mi 5.2 Usability Engineering mit agiler Software-Entwicklung verheiraten Carola Lilienthal Eugen Reischwich	Mi 6.2 Open Source Is Feeding The World Ralph Müller	Mi 7.2 Orientierung im Unbekannten – Struktur für die Digital Design Konzeption David Gilbert Dirk Röder	Mi 8.2 Ready For Rust Erik Dörnenburg	Mi 9.2 5 Dinge für erfolgreiches Remote-Arbeiten Sven Peters
12.00 am – 12.45 pm	Keynote: Holger Urban und Peter Garzarella (Volkswagen): Volkswagen's Journey Towards A Software-Driven Company – Challenges, Chances And Successes								
12.45 pm – 2.30 pm	Lunch								
2.30 pm – 3.30 pm	Mi 1.3 Hybride Architekturen: Legacy, Monolith, Microservices Eberhard Wolff	Mi 2.3 Legacy-Software – Sanieren statt Neumachen! Ralf Wirdemann Torsten Lueckow	Mi 3.3 Wie Container die Software-Entwicklung ändern – und warum das gut so ist Daniel Meixner	Mi 4.3 Product Development Flow – How To Scale Beyond 20 Developers Johannes Mainusch Benjamin Wiedenmann	Mi 5.3 Putting Humans Back In The Loop: Using AR And VR Effectively In Industrial Systems Asa MacWilliams	Mi 6.3 Veränderung beginnt bei mir Stefan Rook Nadine Wolf	Mi 7.3 A Bumpy Road... Enterprise Delivery Approaches In A VUCA World Eric Abelen Annemiek Quirijns	Mi 8.3 Wenn einfach einfach ist: Functional Programming mit Kotlin und Scala Benedikt Jerat Florian Pfeleiderer	Mi 9.3 Living Empathie (erst Verbindung – dann Denken und Handeln) Bettina Ruggeri
3.45 pm – 4.30 pm	Keynote: Tanja Lange (Professorin an der Technische Universiteit Eindhoven): Quantencomputer – der Angriff aus der Zukunft auf unsere Daten von heute								
4.30 pm – 5.00 pm	Coffee Break								
5.00 pm – 6.00 pm	Mi 1.4 Microservices & Makro-Architektur – Drei zentrale Entwurfsfragen Stefan Zörner	Mi 2.4 Warum gute Architektur nichts mit Code-Qualität zu tun hat Stefan Toth	Mi 3.4 Java-Software-Modularisierung – aber wie? Empfehlungen mit und gegen den Trend Thorsten Maier Christian Dedek	Mi 4.4 Reflektieren – Hypothesen aufstellen – Experimentieren: Perpetuum mobile zur Business Agility Jutta Eckstein Renate Willmann	Mi 5.4 Building Evolutionary Architectures Neil Ford	Mi 6.4 Der Wissenschaftsteil: Alternative Organisationsformen – First Patterns Anke Nehrenberg	Mi 7.4 Community Based Business Models Nils Seesing	Mi 8.4 Thoughts On Learning A New Programming Language Patricia Aas	Mi 9.4 Empowerment durch Sociocracy 3.0 Marc Bless
Nightschools 6.30 pm – 8.00 pm	Nmi 1 Event Storming in der Praxis Henning Schwentner		Nmi 2 1x1 technischer Schulden Gernot Starke		Nmi 3 Starke Teams – mithilfe von Werkzeugen aus der Psychologie Jasmine Zahno		Nmi 4 Facilitating The Unknown: Leadership Integrating Outcomes And Relationships Olaf Lewitz Ken Power		Nmi 5 Software Is Eating The World – Even Our Jobs? Frank Buschmann

	Modern Architecture – Known & Unknown	Architecting Web Apps For Humans	Trends & Techniques	Business Agility	Into The Unknown: Where No Software Engineer Has Gone Before	Fusion: IT-Future-Society	DevOps & Continuous Everything	Modern Programming & C++17/C++20	Testing & Quality
9.00 am – 10.30 am	Do 1.1 1) Der Weg zur Serverless-App Leo Lindhorst 2) There and back again: Migration einer Serverless Application aus der Cloud nach on-premise Jens Eickmeyer	Do 2.1 1) Micro-Frontends auf Basis von Webcomponents entwickeln Mark Lubkowitz 2) UI-Integration über Micro-Frontends mithilfe von WebComponents Oliver Widder Roger Gilliar	Do 3.1 1) Entfalte dein Agiles Potenzial – Agile Transformation beginnt in den Menschen Melanie Wohnert Dietmar Wohnert 2) Gemeinsam auf dem Weg ins „Agile Abenteuer“ Liz Helmecke Gerburg Lugo Jasmine Zahno	Do 4.1 1) Wenn Agil die Lösung ist, will ich mein Problem zurück! Olaf Lewitz 2) Was ist denn überhaupt diese „Agile Organisation“?! Sylvius Gerber	Do 5.1 Unreasonable Architecture Frank Buschmann Kevlin Henney	Do 6.1 Rituale und Statusspiele in der Business-Welt – Männer spielen anders als Frauen Susanne Mühlbauer Silke Foth	Do 7.1 1) Von Containern zu Kubernetes-Operatoren Philipp Krenn 2) Vom Loggen und Fehler finden – Elastic Stack richtig einsetzen Dirk Tröndle	Do 8.1 Parallelität in Java: Wie wähle ich das richtige Parallel-API für mein Projekt aus? Marwan Abu-Khalil	Do 9.1 1) Programmieren Sie noch Unittests oder generieren Sie schon? Johannes Bergmann Johannes Hochrainer 2) Computer, fix' meinen Code! Markus Harrer
10.30 am – 11.00 am	Coffee Break								
11.00 am – 11.45 am	Do 1.2 Vom Distributed Monolith zu Self-contained Systems: ein Erfahrungsbericht Marcos Scholtz Gregor Tudan	Do 2.2 Moderne Frontends – Art, Architecture und Automation Andreas Leue Arne Bosien Markus Kortlang	Do 3.2 Retrospectives To The Next Level: Organizational Agility Ben Linders	Do 4.2 Variety: The Spice Of Life And The Secret To Scale Cat Swetel	Do 5.2 Elections: Trust And Critical Infrastructure Patricia Aas	Do 6.2 Ethical Decisions In A Wicked World: The Role Of Technologists, Entrepreneurs, And Organizations Claudia Melo	Do 7.2 Agents of D.E.V.O.P.S. – Ein Blick hinter die Kulissen von DevOps-Teams Christoph Ehlers	Do 8.2 C++20 – Ein Überblick Nicolai Josuttis	Do 9.2 Die Herausforderungen der digitalen Transformation annehmen: Quality Engineering und Expertisen Armin Metzger
12.00 am – 12.45 pm	Keynote: Further information on the keynote will be available soon at www.oopconference.com								
12.45 pm – 2.30 pm	Lunch								
2.30 pm – 3.30 pm	Do 1.3 Der Modulith – die Freuden eines gut strukturierten Monolithen ohne Microservices ernten Carola Lilienthal	Do 2.3 Nachhaltige Single-Page Applications mit DDD – Der Beginn einer wunderbaren Freundschaft? Manfred Steyer	Do 3.3 Der schwarze Schwan: Offlinefähigkeit Holger Tiemeyer	Do 4.3 Business Agility – Agilität wird erwachsen Christoph Mathis Jens Coldewey	Do 5.3 Modern Management: Adapt How You Lead For Agile Success Johanna Rothman	Do 6.3 Deep Fakes 2.0 – Wie neuronale Netze unsere Welt verändern Martin Förtsch Thomas Endres	Do 7.3 Aus die Maus – jetzt geht's wirklich los! Starten mit DevOps: ein Erfahrungsbericht Bastian Pätzold Falk Stern	Do 8.3 C++ Class Natures: Where To Find Them And How To Tame Them Peter Sommerlad	Do 9.3 Qualitätssteigerung durch selbstorganisierte Teams, (k)ein Widerspruch? – Agile QS in agilen Teams Georg Haupt
3.45 pm – 4.30 pm	Keynote: Hannah Fry (Centre for Advanced Spatial Analysis at UCL): How To Be Human In The Age Of The Machine								
4.30 pm – 5.00 pm	Coffee Break								
5.00 pm – 6.00 pm	Do 1.4 Architektur- und Entwurfsmuster für komplexe IoT-Systeme Stephan Roth	Do 2.4 Back to the Frontend – aber nun mit Microservices André Fleischer Heiko Schröder	Do 3.4 Living Feedback – Feedback und Aufrichtigkeit Bettina Ruggeri	Do 4.4 Lähmungen im Angesicht des Unbekannten Gunter Dueck	Do 5.4 Reactive Systems Dave Farley	Do 6.4 Was wir tun, ergibt keinen Sinn – geht's auch anders? Johannes Mainusch Benjamin Wiedenmann	Do 7.4 State Of Art Continuous Compliance – An Overview Karsten Klein Thomas Schulte	Do 8.4 C++ Insights: How Stuff Works, Lambdas And More! Andreas Fertig	Do 9.4 Wann wird die KI meinen Job als Tester übernehmen? Jeremias Röbler
Nightschools 6.30 pm – 8.00 pm	Ndo 1 Systemtheorie und Software-Architektur – Auf der Suche nach unbekanntem Kontexten Christian Mennerich Frederick Meseck	Ndo 2 Architekturoptionen für moderne Web-Frontends Lucas Dohmen Stefan Tilkov	Ndo 3 Innovationskultur gefällig? Design Thinking Quick & Dirty Andrea Kuhfuß	Ndo 4 Structure And Interpretation Of Test Cases Kevlin Henney	Ndo 5 Pecha Kucha All Night Long! Martin Heider Christine Neidhardt				

9.00 am – 12.00 am	Fr 1 – Full Day Advanced Deployment Pipeline Techniques David Farley	Fr 2 – Full Day Paradigmen moderner Parallelität in Java: “Through The Unknown To The Predictable” Marwan Abu-Khalil	Fr 3 – Full Day IoT Deeper Dive – Eingebettete IoT-Geräte spielerisch verstehen Michael Stal	Fr 4 – Full Day Agile Fluency Game – Agilität systematisch einführen Wolf-Gideon Bleek	Fr 5 – Full Day C++-Move-Semantik – Die ganze Story Nicolai Josuttis	Fr 6 – Full Day Immer wieder neu – agile Führung! Olaf Lewitz, Sabine Canditt, Christoph Mathis, Henning Wolf, Stefan Rook, Andreas Schliep	Fr 7 – Half Day Die OOP-Unconference im Open-Space-Format Jasmine Zahno Further Informations see p. 56
☕ Coffee Break 10.30 am – 11.00 am							
🍴 Lunch 12.00 am – 1.00 pm							
1.00 pm – 4.00 pm	Continuation Fr 1 – Full Day Advanced Deployment Pipeline Techniques David Farley	Continuation Fr 2 – Full Day Paradigmen moderner Parallelität in Java: “Through The Unknown To The Predictable” Marwan Abu-Khalil	Continuation Fr 3 – Full Day IoT Deeper Dive – Eingebettete IoT-Geräte spielerisch verstehen Michael Stal	Continuation Fr 4 – Full Day Agile Fluency Game – Agilität systematisch einführen Wolf-Gideon Bleek	Continuation Fr 5 – Full Day C++-Move-Semantik – Die ganze Story Nicolai Josuttis	Continuation Fr 6 – Full Day Immer wieder neu – agile Führung! Olaf Lewitz, Sabine Canditt, Christoph Mathis, Henning Wolf, Stefan Rook, Andreas Schliep	
☕ Coffee Break 2.30 pm – 3.00 pm							

As of: 24 September 2019

CONFERENCE TICKETS

5 DAYS+ <ul style="list-style-type: none"> • 5 Conference days • Social events • Catering + 3 Nightschools + Ticket for public transport in Munich + OOP T-Shirt + Wireless charging station (no matter when you register) + Unconference on Friday <table border="1"> <tr><th colspan="2">Early Bird Price (until 13 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 2,290.00</td><td>€ 2,430.00</td></tr> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 2,290.00</td><td>€ 2,860.00</td></tr> </table>	Early Bird Price (until 13 December 2019)		Alumni	Regular	€ 2,290.00	€ 2,430.00	Regular Price (from 14 December 2019)		Alumni	Regular	€ 2,290.00	€ 2,860.00	5 DAYS <ul style="list-style-type: none"> • 5 Conference days • Catering • Social events • Wireless charging station (if you register until 13 December 2019) <table border="1"> <tr><th colspan="2">Early Bird Price (until 13 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 2,190.00</td><td>€ 2,330.00</td></tr> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 2,190.00</td><td>€ 2,740.00</td></tr> </table>	Early Bird Price (until 13 December 2019)		Alumni	Regular	€ 2,190.00	€ 2,330.00	Regular Price (from 14 December 2019)		Alumni	Regular	€ 2,190.00	€ 2,740.00	4 DAYS <ul style="list-style-type: none"> • 4 Conference days • Catering • Social events • Wireless charging station (if you register until 13 December 2019) <table border="1"> <tr><th colspan="2">Early Bird Price (until 13 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,990.00</td><td>€ 2,120.00</td></tr> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,990.00</td><td>€ 2,490.00</td></tr> </table>	Early Bird Price (until 13 December 2019)		Alumni	Regular	€ 1,990.00	€ 2,120.00	Regular Price (from 14 December 2019)		Alumni	Regular	€ 1,990.00	€ 2,490.00	3 DAYS <ul style="list-style-type: none"> • 3 Conference days • Catering • Social events • Wireless charging station (if you register until 13 December 2019) <table border="1"> <tr><th colspan="2">Early Bird Price (until 13 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,690.00</td><td>€ 1,790.00</td></tr> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,690.00</td><td>€ 2,110.00</td></tr> </table>	Early Bird Price (until 13 December 2019)		Alumni	Regular	€ 1,690.00	€ 1,790.00	Regular Price (from 14 December 2019)		Alumni	Regular	€ 1,690.00	€ 2,110.00	2 DAYS <ul style="list-style-type: none"> • 2 Conference days • Catering • Social events • Wireless charging station (if you register until 13 December 2019) <table border="1"> <tr><th colspan="2">Early Bird Price (until 13 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,390.00</td><td>€ 1,480.00</td></tr> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,390.00</td><td>€ 1,740.00</td></tr> </table>	Early Bird Price (until 13 December 2019)		Alumni	Regular	€ 1,390.00	€ 1,480.00	Regular Price (from 14 December 2019)		Alumni	Regular	€ 1,390.00	€ 1,740.00	1 DAY <ul style="list-style-type: none"> • 1 Conference days • Catering • Social events <table border="1"> <tr><th colspan="2">Regular Price (from 14 December 2019)</th></tr> <tr><td>Alumni</td><td>Regular</td></tr> <tr><td>€ 1,090.00</td><td>€ 1,360.00</td></tr> </table>	Regular Price (from 14 December 2019)		Alumni	Regular	€ 1,090.00	€ 1,360.00
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3 Nightschools € 425.00	2 Nightschools € 350.00	1 Nightschool € 250.00	Unconference € 99.00																																																																				

All prices do not include VAT. Discounts are only deducted from the normal price of the respective ticket and cannot be added, i.e. the combination of early booking and alumni discount or other combinations are not allowed. Alumni have already participated in SIGS DATACOM events for a fee. Nightschools and Unconferences can be booked independently of conference participation. The fee-based courses are personal and non-transferable.

EARLY BIRD BENEFITS / SPECIAL OFFERS

Alumni – Loyalty is rewarded

Up to 20% discount off the regular price – no matter when you register for OOP Conference 2020! If you register until 13 December you will receive a wireless charging station for your mobile phone from us on site.

Early Bird Discount – Being fast is worth it

Book until 13 December, benefit from up to 15% discount on the regular price and receive a wireless charging station for your mobile phone.



WHAT DOES OOP CONFERENCE OFFER TO YOU?

IT professionals such as [software architects](#), [IT project managers](#), [experienced developers](#) and [programmers](#) put their trust in the OOP Conference when it comes to professional training – one of the most popular and largest software conferences in the German-speaking area.

Therefore, for the software community, the OOP conference is a fixed date in the calendar. [Latest trends from the field of software technology](#) as well as [practice-oriented lectures from experienced and recognized speakers](#) who will work with you to share their knowledge, enthusiasm and also current concerns.

Top-class keynotes and renowned speakers such as

- [Frank Buschmann](#)
- [Erik Dörnenburg](#)
- [Gunter Dueck](#)
- [Dave Farley](#)
- [Hannah Fry](#)
- [Kevlin Henney](#)
- [Tanja Lange](#)
- [Carola Lilienthal](#)
- [Tania Peizker](#)
- [Dana Pylayeva](#)
- [Johanna Rothman](#)
- [Anita Sengupta](#)
- [Michael Stal](#)
- [Gernot Starke](#)
- [Cat Swetel](#)
- [Stefan Tilkov](#)
- [Ralf Westphal](#)
- [Eberhard Wolff](#)

and many more offer 5 days of a mixture of deep-seated contents and a wide range of topics!

MAIN TOPICS OF THE OOP OOP 2020

SOFTWARE-ARCHITECTURE MAINTENANCE • **API** • **PROJECT MANAGEMENT** • **USER EXPERIENCE** • **MICROSERVICES/DOCKER** • **DEVOPS & CONTINUOUS EVERYTHING** • **BUSINESS AGILITY** • **SOCIAL SKILLS** • **ARTIFICIAL INTELLIGENCE** • **DIGITAL TRANSFORMATION** • **MODERN PROGRAMMING** • **ARCHITECTURE OF WEB-APPS** • **ENTERPRISE-ARCHITECTURE** • **DDD**

TALKS IN OUR EXPO

Java

Java has long been the most popular programming language. The JVM offers besides Java a multitude of cross-platform usage possibilities such as Smart Home, services in the cloud or embedded systems.

Low Code

The low-code approach allows applications to be implemented up to ten times faster, which significantly reduces the development time and reduces costs. Learn how to comply with the current to counter a lack of resources.

Machine Learning for Data Management & Analytics

The forum aims to understand the potential of ML for more efficient data processing, analytics processes as well as data governance tasks.

PHP

79 % of all websites use PHP as their server-side programming language. PHP applications are used in many e-commerce applications or CMS systems, for example.

Service Mesh

Service mesh implementations are already in place at Netflix and Twitter. These companies are pioneers for the technology, which is on an important infrastructure level.

User Experience

Digitization and Industry 4.0 are the new drivers. New technical achievements such as Mixed Reality and the HoloLens inspire expectations. In addition, there is the great trend towards Artificial Intelligence paired with voice interfaces such as Amazon Alexa.

5 REASONS TO VISIT OOP 2020

1. Software Meets Business

Year after year, the OOP stands for specialist information on the newest State of the art in software engineering. Jutta Eckstein as Program Chair (together with 11 Track Chairs) ensures that the OOP conference always keeps its finger on the pulse of time!

2. More than 170 lectures on 5 days

Around 220 speakers – including numerous top international speakers – present the latest findings and developments in software technology each year.

3. Wide range of topics

You can choose your sessions from 13 subject areas in 9 parallel tracks. It is guaranteed that you can listen to presentations that meet your professional requirements and provide you with practice-oriented content.

4. Networking

Coffee Breaks and social events offer you an excellent platform for the joint exchange of experience with other participants, speakers and exhibitors.

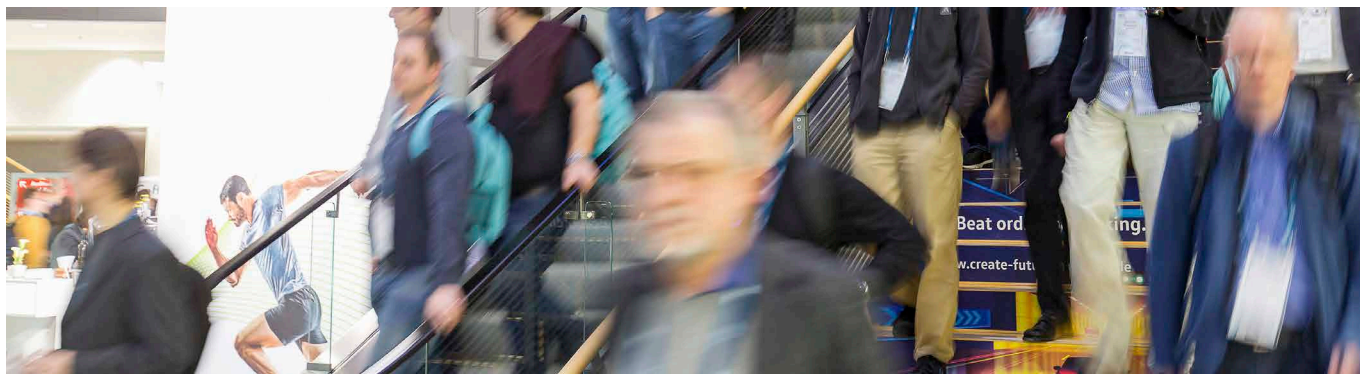
5. Current specialist information in well-tried formats

Presentations and practice reports are established lecture formats. The OOP 2020 offers with Unconference, Workshops and Graphic Recording again excellent opportunities to gain access via other methods on current topics.

Back again: Join our Unconference on Friday

The schedule of the Unconference at the OOP develops within the event. How exciting, informative and interesting it will be depends on the participants. Unconference is what you make of it!

WHAT PARTICIPANTS SAY ABOUT THE OOP



»Many interesting topics, good speakers and many different tracks«

»Always up to date«

»Not a developer conference, but an architecture conference«

»Many different, high quality presentations«

»Mixture of Talks, Keynotes and Expo«

»Business Technique Mix«

»Coming together with various experts, new contacts in a pleasant and open atmosphere«

»The atmosphere! The OOP is – stronger than other conferences – a kind of class reunion.«

»The only event for architecture«

»Speakers who are not often in Germany«

»Mix of information on current trends also beyond pure IT«

»The range of topics is (in my opinion) unprecedented! This enables us to have a common conference experience with several colleagues who have very different interests.«

TRACKCHAIRS

An independent committee of Program Chairs, Trackchairs and Reviewers selected the presentations after a thorough review and decided which speakers and topics are included in the program of OOP 2020.



Wolfgang Keller

Agile Going Enterprise Architecture? Or Vice Versa?

It has been a dominant question if it comes to Enterprise Architecture, whether it can become “agile”. The trend toward agile organizations leads to transformations also in EAM. This track comprises sessions on Enterprise Architecture that deal with tradeoffs that arise from the simultaneous need for sustainability and enterprise agility at the same time.



Stefan Tilkov

Architecting Web Apps For Humans

Web applications have become and remain the default user interface for most applications today, despite having been declared dead a number of times. While the technology used to build web apps has moved on, some fundamental principles remain. In this track, we’ll take a look at the state of the art of building great modern applications on the web. How can we make applications accessible, secure, evolvable, stable – while still being fun to use? When we build them, how do we strike the right balance between shiny new things and foundational patterns? What new techniques, technologies, standards and best practices have been found to work best – and for which kinds of applications?



Marc Bless

Business Agility

Applying an Agile framework on team-level and implementing an Agile scaling framework do not help to act agile on the enterprise level. This track dives deep into real Business Agility. What is Business Agility anyway and what is necessary to create an Agile Enterprise? Is there a way of a soft transition or is a radical transformation mandatory?



Dorte Lübbert

DevOps & Continuous Everything

The term “DevOps” popped up in 2009. In the following years it yielded many tools, methods, practices. Probably the most significant contribution of DevOps, though, was a different idea of how development, quality assurance and operations should collaborate. 10 years later we’ll be taking a look at the current state of DevOps from a technical and cultural perspective.



Johannes Mainusch

Fusion: IT-Future-Society

This track looks for weird, personal, odd and possibly not quite fitting contributions, with topics that inspire listeners to think in new directions. Lectures that connect technology and us, as human and future society. Keywords that mark this fusion are: art, communication, people, from I to we, trust, carbon dioxide, wealth, global intelligence, enterprises, hope, ...



Nicolai Josuttis

Modern Programming & C++17/C++20

As software developers and system architects, we are required to know many different things; however, the foundation is still programming. And in the past years many things have changed about programming: We have new programming languages, new paradigms, more and more parallelization, and improved programming tools. This track reports, documents, and compares interesting, remarkable, and helpful aspects of programming in general and new/established programming languages in particular.



Susanne Mühlbauer

Product Discovery, Innovation & User Experience

An Expedition Into the Unknown comes with chances, surprises and risks. Which problems do we want to solve for our future and how can products, services and systems contribute to that future? This track concentrates on the question how we can smartly invest in product and business development and offers case studies as well as ideas on Innovation, UX, Validation, Design, Delivery and Planning.



Olaf Lewitz

Social Integration

Into the unknown – a perfect challenge for the social beings we humans are. Given relationships are the only things we can rely on in times where everything changes. Unfortunately, as engineers, we have a tendency to nurture our relationships less than other systems we work on. In this track we’re looking at the relationship with and in-between humans, to become successful in the unknown.



Michael Stal

Software Architecture Maintenance & Evolution

Software Architecture results from of a sequence of architectural decisions. It is a common misconception that this process ends with system release. Objective of the track is to illustrate how software architects can address this challenge systematically in their design activities. Sessions comprise best practices, methods, processes and tools for understanding, evaluating, extending and maintaining software systems.



Eberhard Wolff

Modern Architecture – Known & Unknown

Software Architecture is the foundation for any software project. Development teams discover and try new kinds of architectures constantly. Keeping this in mind we are discussing the following topics: Agile architecture | Structured Monoliths | Events | Cloud-native | Serverless | Microservices | Testing & Quality Self-contained Systems



Frank Buschmann

Signature Track by Frank Buschmann:

Into The Unknown: Where No Software Engineer Has Gone Before

Signature Track – Digitalization is rapidly changing our world – with giant effects on our society and on our profession as software engineers. We are on a long voyage into the unknown, a voyage whose only constants are uncertainty and continuous change. Regarding the types of software systems we build, the practices and technologies we utilize to design, develop, deliver, operate and use these systems, and also regarding the culture, organization and processes in which we as developers perform our daily work. In this track we shed light on important organizational, architectural and technical trends of this never-ending journey and explore some far ends of their possibilities and limitations. We boldly go where no software engineer has gone before!



Jutta Eckstein

Trends & Techniques

In this track we are concentrating on how the details of current and future trends & techniques influence already today the interplay of software and business. Amongst other things we will take a look at the increasing automation in software development, the need for continuous innovation and the challenges and opportunities agile provides for enterprise architectures, for organizational design, and for the individuals. Moreover, we'll discuss how a monolith can benefit from DevOps.



Peter Zimmerer

Testing & Quality

Effective and efficient software and system development requires superior test approaches in place and a strong commitment to quality. To determine the right mix of test methods and quality measures is no easy task in real project life due to increasing demand for reliability of systems, cost efficiency, and market needs on speed, flexibility, and sustainability. This track provides practical guidance how to address these challenges in the area of testing and quality and presents professional testing as a lever to explore into the unknown.

REVIEWERS

These reviewers have examined about [410 submissions](#) with a total of [1,205 reviews](#). That's an average of 13 reviews per reviewer!

- | | | | | | |
|-------------------|--------------------|-----------------|-------------------|------------------|---------------------|
| Marwan Abu-Khalil | Claus Fühner | Elmar Juergens | Carola Lilienthal | Udo Pracht | Andreas Streichardt |
| Marco Achtziger | Kornelius Fuhrer | Anja Kammer | Dorthe Lübbert | Hanna Prinz | Ines Stuppacher |
| Stephan Aier | Lars Fürstenberg | Wolfgang Keller | Marc Lustig | Andreas Rau | Oliver Thissen |
| Stefan Bente | Sabine Goldes | Michael Kircher | Michael Mahlberg | Nicole Rauch | Holger Tiemeyer |
| Marc Bless | Peter Götz | Rolf Knoll | Johannes Mainusch | Edgar Rodehack | Stefan Tilkov |
| Ramon Breitbarth | Sebastian Graeber | Klaus Kohlhaas | René Matthäi | Klaus Rohe | Andreas Ulrich |
| Andreas Carstens | Katrin Grothues | Bernd Kolb | Felix Menden | Thomas Ronzon | Ömer Uludag |
| Kurt Cotoaga | Stephan Grünfelder | Simon Kölsch | Ralph Miarka | Steffen Schaefer | Marcus Weiner |
| Erik Dörnenburg | Baris Güldali | Kai Kratz | Michael Mlynarski | Jens Schauder | Thorsten Wendt |
| Oliver Drotbohm | Inge Hanschke | Nicolai Krüger | Thomas Much | Peter Schnell | Markus Wissekall |
| Kim Nena Duggen | Martin Heider | Ralf Kruse | Susanne Mühlbauer | Björn Schotte | Eberhard Wolff |
| Gero Duppel | Mick Hohmann | Falk Kühnel | Frank Müller | Frank Simon | Oliver Zeigermann |
| Jutta Eckstein | Lars Hupel | Michael Kunz | Nicole Paterova | Falk Sippach | Stefan Ziegler |
| Michael Felderer | Jörg Ihle | Bernhard Lahres | Helmut Pichler | Anton Skornyakov | Peter Zimmerer |
| Andreas Fertig | Björn Jensen | Mike Leber | Frank Pientka | Peter Sommerlad | Olaf Zimmermann |
| Timon Fiddike | Nicolai Josuttis | Olaf Lewitz | Andrej Pietschker | Michael Stal | |

KEYNOTES



Anita Sengupta is an aerospace engineer, rocket scientist, and veteran of the space program who has developed technologies that have enabled the exploration of Mars, asteroids, and deep space for 20 years. Her career began at Boeing Space and Communications. She then worked for NASA for 16 years. After leaving NASA she led the development of the hyperloop as Senior Vice President of engineering systems at Virgin Hyperloop. In 2019 she became a co-founder and chief product officer of Airspace Experience Technologies, or ASX (asx.us), which is leading the development of a hybrid-electric, vertical takeoff and landing urban aerial mobility system. She and her team hope to use the system to revolutionize urban transit. As an engineering savvy executive and pilot, she is now leading the mobility solutions for smart cities by eliminating congestion and reducing the carbon footprint of air travel.

Tuesday 11.00 am – 12.00 am

FROM FLYING CARS TO HUMANS ON MARS – THE FUTURE OF TRANSPORTATION

In the global marketplace that transfers knowledge at the speed of light, we have a massive time delay that is modern transportation methods. We each spend up to 30% of our lives commuting on congested freeways, airports, and train stations. We put green-house gases into the atmosphere and change our climate with global consequences to health, habitat loss, and our economic future. On the cargo front this results in lost revenue, productivity, with no clear path to address the growing demands of the global market place. What if we could disrupt transportation, an aging and non-agile industry which has not seen a new mode in over 100 years. By introducing game changing technologies we can increase capacity, enhance energy efficiency, and shrink our carbon foot print. Anita Sengupta will discuss how space-age tech coupled to the VC funded innovation environment are enabling the revolution in green transportation. She will share her real-world engineering projects from her work developing the world's first hyperloop in Las Vegas Nevada, to autonomous VTOL air taxis her new company is designing in Detroit Michigan, to her research on entry systems that will land the first humans on Mars.

SPACE-AGE TECH COUPLED WITH VENTURE CAPITAL ENABLES GREEN TRANSPORTATION

Tuesday 3.00 pm – 3.45 pm

THE RISE OF EVENT STREAMING – WHY APACHE KAFKA CHANGES EVERYTHING

Today, the open source project Apache Kafka is being used by tens of thousands of companies including over 60% of the Fortune 100 to power and innovate their businesses. We will discuss the market and technology changes that have given rise to Kafka and to Event Streaming, and we will introduce the audience to the key aspects of building an Event streaming platform with Kafka.

BUILD A SCALABLE FOUNDATION FOR EVENT-DRIVEN ARCHITECTURE



Kai Wähler works as Technology Evangelist at Confluent. Kai's main area of expertise lies within the fields of Big Data Analytics, Machine Learning, Integration, Microservices, Internet of Things, Stream Processing and Blockchain. He is regular speaker at international conferences such as JavaOne, O'Reilly Software Architecture or ApacheCon, writes articles for professional journals.

KEYNOTES



After his studies in Informatics, **Peter Garzarella** joined the automotive industry at Porsche and started his career in the Networking Group – International Network department in 2001. After 10 years at Porsche, he started his journey at the Volkswagen Group in Enterprise Architecture Management. He went back to his tech roots in 2015 and founded the Volkswagen Digital:Lab in Berlin. Today, as the Head of Group Software Development, he continues to build software and Software Development Centers all over the world.

Wednesday 12.00 am – 12.45 pm

VOLKSWAGEN'S JOURNEY TOWARDS A SOFTWARE-DRIVEN COMPANY – CHALLENGES, CHANCES AND SUCCESSES

In their keynote, Peter Garzarella and Holger Urban will be talking about Volkswagen's software development journey. They will take a deep dive into the topics „Controlling Complexity“ and „Software Development“. They aim to answer the questions: What kind of technologies does Volkswagen use? How does Volkswagen do things? And why do they do them the way they do? You will learn more about the history of Software Development at Volkswagen, modern software solutions in factories, future plans, success stories; And of course – Volkswagen's worldwide Software Development Centers, their different working methods and what they are currently working on.



Holger Urban, born in 1971, studied Business informatics at the Otto-von-Guericke University in Magdeburg and started his professional career with the Volkswagen AG, Application Management, specializing on data bases. From 2013 to 2018 he has been responsible for the IT-infrastructure operation and in 2015 he took over responsibility for the overall subject "IT-infrastructure", at the same time being in charge of the Cloud Project of the Volkswagen Group. In 2019 he switched to software development and is one of the Office Leads of the SDC (Software Development Center) in Wolfsburg.

FROM CAR ENGINEERING TO SOFTWARE ENGINEERING

Thursday 3.45 pm – 4.30 pm

HOW TO BE HUMAN IN THE AGE OF THE MACHINE

Would you trust an algorithm to send someone to jail? Or to diagnose someone with cancer? How about an algorithm that analysed your friendships to calculate if you were reliable enough to take out a loan? In this talk, we'll go on a tour of the good, the bad and the downright ugly of the algorithms that surround us. We'll examine whether we should rely on algorithms to know what's best, and ask if we can trust them over our own judgement. We'll lift the lid on their inner workings, demonstrate their power, expose their limitations, and examine whether they really are an improvement on the humans they are replacing.

YOUR JUDGEMENT MAKES THE DIFFERENCE – EVERYTHING ABOUT THE GOOD, THE BAD OR EVEN THE UGLINESS OF ALGORITHMS



Hannah Fry is an Associate Professor in the Mathematics of Cities at the Centre for Advanced Spatial Analysis at UCL where she studies patterns in human behaviour. Her research applies to a wide range of social problems and questions, from shopping and transport to urban crime, riots and terrorism. Hannah Fry is the author of Hello World, The Indisputable Existence of Santa Claus: The Mathematics of Christmas and The Mathematics of Love: Patterns, Proofs, and the Search for the Ultimate Equation.

TUTORIALS MONDAY

Monday 10.00 am – 5.00 pm Mo 2

HIGH TECH METRICS FOR LOW TECH BOARDS – HOW TO SET YOUR TEAMS FREE

Full Day Tutorial Physical, low tech boards are central in early stage agile adoptions. The power of the physical experience yields astonishing results and is – together with the independence from centrally managed tools – an important enabler for change. But there comes a time when the need to evaluate the data exceeds the capabilities of low tech analytics. Instead of jumping onto a „big“ solution, there are other ways to generate insights. This tutorial presents ways to integrate several open source solutions into the actual day-to-day activities of teams.

Max. number of participants: 25

Participants should bring along their own laptop. Please find details online.

Target Audience: Agile Coaches, Team Leads, Managers with reporting and planning duties

Prerequisites: Some practical project experience. Willingness to actually code in a perhaps new language | **Level:** Practicing

After quite a while in software development in the last century **Michael Mahlberg** turned to consulting on software architecture and processes in general around the turn of the Millennium. Always with a strong focus on continuous improvement and sustainable change he now spends most of his time supporting clients in their quest for more effective ways to work, mostly by applying lean and agile concepts.



Monday 10.00 am – 1.00 pm Mo 6

AGILE MOTIVATION IN ACTION – CONCRETE MEASURES TO TRANSLATE AUTONOMOUS MOTIVATION INTO PRACTICE

Half Day Tutorial Of course, there is no silver bullet to solve all motivation issues that might arise in organizations. But there are helpful questions to ask about people’s inner engine, when we are travelling into the unknown.

In this workshop I will provide a brief overview of the model of autonomous motivation, of its links to agility and of three approaches that can help stimulate it. Participants will benefit from putting the information provided directly into action, discussing and collaborating on possible solutions for their individual contexts.

Max. number of participants: 30

Target Audience: Agile Coaches, Decision Makers, Team Leads, Team Members | **Prerequisites:** Willing to work on solutions for fueling the inner engine without indepth theory provided in session | **Level:** Introductory

Maren Baermann (Dipl.-Psych. & M.S. Creative Studies) is an innovation psychologist with a passion for agility and innovation culture. To her the key to sustainable growth for any organization is the ability to think novel and solution-oriented, then apply the insights gained in an agile manner. This always begins with the people. That’s why she specialized in enabling people, through creativity workshops, innovation team-buildings, soft-skill seminars and measures to foster an agile innovation culture.



Monday 10.00 am – 1.00 pm Mo 7

INTO THE UNKNOWN OF DESIGN FOR TESTABILITY

Half Day Tutorial Testability is the degree to which a system can be tested effectively and efficiently. It’s one of those rather unknown and vague non-functional requirements that are often neglected and wrongly ignored.

Peter describes influencing factors and constraints and shares his experiences on the value and benefits of testability. He discusses responsibilities and involved stakeholders to make it happen and shares a new, comprehensive strategy on design for testability that can be implemented stepwise to gain the benefits in a cost-efficient manner. **Max. number of participants: 48**

Target Audience: Test Architects, Software Architects, Test Engineers, Product Owners, Developers | **Prerequisites:** Basic knowledge about testing and quality engineering | **Level:** Practicing

Peter Zimmerer is a Principal Key Expert Engineer at Siemens AG, Corporate Technology, in Munich, Germany. For more than 25 years he has been working in the field of software testing and quality engineering. He performs consulting, coaching, and training on test management and test engineering practices in real-world projects and drives research and innovation in this area. As ISTQB® Certified Tester Full Advanced Level he is a member of the German Testing Board (GTB). Peter Zimmerer has authored several journal and conference contributions and is a frequent speaker at international conferences.



Monday 2.00 pm – 5.00 pm Mo 10

DEVOPS CULTURE SIMULATION (WITH LEGO AND CHOCOLATE GAME)

Half Day Tutorial This tutorial is ideally designed for DevOps leaders that are evaluating their approach to DevOps transformation, leading their organizations through the first steps in adopting DevOps practices, or noticing gaps left by “automation only” approach to DevOps. Gamified format, real-life examples, latest findings from the State of DevOps report and in-depth debriefing, make this unique simulation effective and fun. Join it to experience the benefits.

Max. number of participants: 45

Target Audience: Decision Makers, Managers, Business Stakeholders | **Prerequisites:** Familiarity with Scrum framework is helpful, but not mandatory | **Level:** Introductory

As an Agile Coach and trainer with over 18 years of diverse experience in IT, **Dana Pylayeva** brings unique perspective and stories “from the trenches”. She’s been fortunate to work with co-located and distributed teams in US, Canada, Ireland, Japan, UK, India and Russia. Dana is an educational games designer and the author of several DevOps/Agile books and games. She enjoys being actively involved in Agile community in various roles as a volunteer, reviewer, track chair, program chair and conference chair. She is the founder of Big Apple Scrum Day conference in NYC, co-organizer of NYC Scrum User Group and a Program co-chair at Agile2019 conference.



Monday 2.00 pm – 5.00 pm Mo 12

AGILE REQUIREMENTS ENGINEERING

Half Day Tutorial This tutorial introduces to agile requirements engineering. It offers many practical examples from our industry projects when introducing agility. The training considers the IREB agile RE primer curriculum, however with more practical focus from many agile projects across industries. Participants are eligible to IREB certification. We give practical tips for designing agile requirements processes. In a case study, we present experiences and benefits of agile requirements engineering in a medical technology project with Siemens.

Target Audience: Architects, Analysts, Requirements Engineers, Product Owners, Software Engineers, Agile Teams | **Prerequisites:** Project Management | **Level:** Practicing

Christof Ebert is managing director at Vector Consulting Services. He supports clients around the world in agile transformations. Before he had been working for ten years in global senior management positions. A trusted advisor for companies around the world and a member of several of industry boards, he is a professor at the University of Stuttgart and at Sorbonne in Paris. He authored several books including the most recent "Global Software and IT" published by Wiley and „Requirements Engineering“ published by dPunkt and in China by Motor Press. Since many years he is serving on the editorial Board of the prestigious „IEEE Software“ journal.



TALKS TUESDAY

Tuesday 9.45 am – 10.30 am Di 3.1

THE OLIGOPOLY. WHAT IS THE RIGHT MIX OF TEST AUTOMATION TOOLS IN A SOFTWARE DEVELOPMENT COMPANY?

Trends & Techniques It is hard to find the right test automation tool, especially when your decision affects not one project, but many different ones. On one side, in terms of agile transformation, each team should be allowed to pick a test automation tool by itself. On the other side, for the sake of resource liquidity, you will seek to use same tools across similar projects. As test manager, I continuously face the dilemma: should I support an anarchy of test automation tools across agile projects and let the fittest survive, or should I keep a monopoly?

Target Audience: Test Managers, Test Automation Engineers, Decision Makers

Prerequisites: Testing in Agile Development, Testing in Waterfall

Level: Practicing

Anastasia Mikitenko is Senior QA Analyst at FactSet GmbH. Her company provides custom-tailored web solutions for wealth managers in the financial industry. Since 2015, she shapes testing processes in her company, in first line, through direct participation in frontend projects. She loves catching bugs both with hands and machines, and she keeps her eyes open for potential process optimizations. In her private life, she is a fitness junkie and a latent vegetarian.



Tuesday 9.00 am – 10.30 am Di 9.1

AGILE MOTIVATION – WHY AGILITY ROCKS!

Social Integration Some companies try to motivate their people with fancy offices and other perks. But somehow, that eventually seems to drain motivation instead. In most companies. There are exceptions, though, that seems to bristle with engaged people, yet there are no bean bags or fruit baskets anywhere in sight. How come? There are scientific explanations for that & some hands-on options for achieving a high motivation level in agile teams. As motivation is the key to survival for organizations, true agility provides the means for thriving in the unknown.

Target Audience: Agile Coaches, Decision Makers, Team Leads, Team Members

Prerequisites: Interest in fueling that inner engine | **Level:** Introductory

Maren Baermann (Dipl. Psych & M.S. Creative Studies) is an innovation psychologist with a passion for agility and innovation culture. To her the key to sustainable growth for any organization is the ability to think novel and solution-oriented, then apply the insights gained in an agile manner. This always begins with the people. That's why she specialized in enabling people, through creativity workshops, innovation team-buildings, soft-skill seminars and measures to foster an agile innovation culture.



Tuesday 2.00 pm – 2.45 pm Di 2.2

THE CHANGING FACE OF ETL: EVENT-DRIVEN ARCHITECTURES FOR DATA ENGINEERS

Software Architecture Maintenance & Evolution In this talk, we'll discuss the concepts of events, their relevance to data engineers & their ability to unify architectures in a powerful way. We'll see how stream processing makes sense in both a microservices and ETL environment, and why analytics, data integration and ETL fit naturally into a streaming world. The talk will conclude with a hands-on demonstration of these concepts in practice using Apache Kafka and commentary on the design choices made.

Target Audience: Architects, Data Engineers, Software Engineers, Analysts

Prerequisites: None | **Level:** Introductory

Robin Moffatt is a Developer Advocate at Confluent, the company founded by the original creators of Apache Kafka. His career has always involved data, from the old worlds of COBOL and DB2, through the worlds of Oracle and Hadoop, and into the current world with Kafka. His particular interests are analytics, systems architecture, performance testing and optimization.



Tuesday 2.00 pm – 2.45 pm Di 3.2

ENTROPY & ORGANIZATIONAL DESIGN – THREE EXAMPLES

Trends & Techniques Software contains a lot of moving parts that all have their own ecosystems, tooling, and lifecycle. How do you turn continuous, creative chaos into something you can run stock exchanges on? What are the roles of automation, open standards and hybrid integration in this? Let's look at companies that radically transformed the way they build software and create & involve ecosystems.

Target Audience: Architects, Organizational Change Agents, Decision Makers

Prerequisites: None | **Level:** Introductory

Tuesday 2.00 pm – 2.45 pm Di 4.2

THE BUSINESS CASE OF (DAILY) JOURNALING

Business Agility Business agility is often part of the OS of an organization. The „hardware“ where it runs on are the people of the organization. But how can agile values come to life, how can transparency and inspect/adapt reap its real benefits when there are (still) doubting individuals fearfully facing the unknown? A simple and essential lever is self-reflection. You want to change habits in all your life's „departments“? You want to boost your resources? You want to harvest outstanding outcomes across the „silos“ of your life? Then join us!

Target Audience: Managers, Project Leaders, Architects, Developers, Curious Humans of all kind

Prerequisites: Some work experience in an IT field is beneficial but not mandatory

Level: Practicing

Tuesday 2.00 pm – 2.45 pm Di 6.2

(MACHINE) LEARNING FROM FAILURES

Testing & Quality In large software systems determining the real impact of a software change can be very hard. Even minor changes can produce errors in unexpected locations. However, the data present in every modern software development project can be used to shed light on non-obvious dependencies in the software and to warn about possibly impacted testcases ahead of time. We'll show how well a machine learning system trained on five years of data from source control and test results performs the task of alerting developers to potentially test-breaking commits.

Target Audience: Developers, Testers, Architects, Managers, Decision Makers

Prerequisites: Basic knowledge in Machine Learning, Big Data, Software Development

Level: Practicing

Tuesday 2.00 pm – 2.45 pm Di 8.2

CONTINUOUS INTEGRATION? I DON'T THINK THAT WORD MEANS WHAT YOU THINK IT MEANS

DevOps & Continuous Everything Continuous Integration has become synonymous with CI-Servers and the concept of CI/CD-Pipelines. Unfortunately, you can have continuous delivery without continuous integration. Just as you can check in directly to ‚production‘ without having trunk-based development. (And shouldn't trunk-based development should be called master based development nowadays?).

This session aims to debunk several misconceptions about good engineering practices and proposes some ways to get from cargo-cult agile (aka in-name-only-agile) to tangible results today.

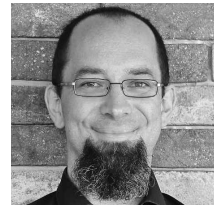
Target Audience: Developers, Manager, Scrum Masters, Process Coaches, Team Leads

Prerequisites: None | **Level:** Introductory

Uli Hitzel has been working with data engineering & distributed systems since the early days of the internet. Previously with companies including Microsoft, Red Hat, Yahoo! and IBM, he now helps Axway customers create innovative, data-driven platforms using state-of-the-art building blocks for API Management, data integration, and analytics.



Cosima Laube studied Computer Science and Psychology and worked over 12 years as a leader and software crafter in different business domains and tech stacks. Meanwhile Cosima found her place between coding and leadership. Her mission is raising awareness for „everything human“ while still speaking the technical language. In that role she often helps with debugging communication between engineers, architects, product people and managers.



Marco Achtziger is Test Architect working for Siemens Healthcare GmbH in Forchheim. He has several qualifications from ISTQB and iSQI and is a certified Software Architect by Siemens AG.

Gregor Endler holds a doctor's degree in Computer Science for his thesis on completeness estimation of time-stamped data. His work at codemanufaktur GmbH deals with Machine Learning and Data Analysis.

After quite a while in software development in the last century **Michael Mahlberg** turned to consulting on software architecture and processes in general around the turn of the Millennium. Always with a strong focus on continuous improvement and sustainable change he now spends most of his time supporting clients in their quest for more effective ways to work, mostly by applying lean and agile concepts.



Tuesday 4.15 pm – 5.15 pm Di 1.3

LOST IN TRANSACTION? STRATEGIES TO MANAGE CONSISTENCY IN DISTRIBUTED SYSTEMS

Modern Architecture – Known & Unknown In distributed systems you are in charge of dealing with consistency yourself. ACID transactions are only available locally within components and two-phase commit doesn't scale. In this talk I discuss these problems and discuss recipes and frameworks, including the Saga-Pattern. Expect fun little live hacking sessions with open source components, but also real-life stories.

Target Audience: Architects, Developers

Prerequisites: Basic knowledge in microservices or distributed systems

Level: Practicing

Bernd Rucker has more than 15 years experience in software development. He has helped automating highly scalable core workflows at global companies including T-Mobile, Lufthansa and Zalando. He has contributed to various open source workflow engines. He is co-founder and chief technologist of Camunda, an open source software company reinventing workflow automation. He is currently focused on new workflow automation paradigms that fit into modern architectures around distributed systems, microservices, domain-driven design, event-driven architecture and reactive systems.



Tuesday 5.45 pm – 6.45 pm Di 4.4

TEAMS SELF-SELECTION – GETTING READY FOR THE UNKNOWN

Business Agility This session is about self-selection – a fundamentally different way of creating teams. Self-selection can offer many benefits – a better culture, learning opportunities, organizational resilience. However, leap into unknown may cause some fears and discomfort for management and individual contributors alike. In this session I will share stories from running successful self-selection events in New York, Dublin and Chicago, and show the games and tools I use to prepare technology teams and their management for their first self-selection events.

Target Audience: Agile Coaches, Scrum Masters, Team Members, Dev/IT Managers, Directors, Program Managers | **Prerequisites:** Experience working with teams | **Level:** Practicing

As an Agile Coach and trainer **Dana Pylyayeva** brings unique perspective and stories “from the trenches”. She's been fortunate to work with co-located and distributed teams in US, Canada, Ireland, Japan, UK, India and Russia and shares with you their distinct challenges, successes and effective practices. Dana is an educational games designer and the author of several DevOps/Agile books and games. She enjoys being actively involved in Agile community in various roles as a volunteer, reviewer, track chair, program chair and conference chair. She is the founder of Big Apple Scrum Day conference in NYC, co-organizer of NYC Scrum Group and a Program co-chair at Agile2019 conference.



TALKS WEDNESDAY

Wednesday 9.45 am – 10.30 am Mi 3.1

193 EASY STEPS TO DEVOPSING YOUR MONOLITH

Trends & Techniques After an expensive failed attempt at a complete rewrite, Ticketmaster is attempting to evolve the monolith that is its core ticketing platform. This multi-year effort requires showing appropriate respect for the platform's highly profitable 40 plus year history without falling victim to the inertia of past profit and success. This is not a session about devops best practices; it is the true story of one company's journey towards a more flexible, adaptable, and easily maintainable architecture.

Target Audience: Architects, Developers, Tech Leads, Managers, SREs

Prerequisites: Some technology decision making experience

Level: Practicing

Cat Swetel is an engineering manager with experience applying Agile and lean principles in a variety of settings: from start-ups to large enterprises, warehouses to web, etc. She is passionate about increasing diversity in tech. In her leisure time, Cat enjoys making jokes about Bitcoin, hiking, and reading feminist literature.



Wednesday 9.00 am – 9.45 am Mi 5.1

ASK OUR LIVE AI BOT HOLOGRAM HOW IT FEELS IN ANY LANGUAGE: FROM THE FRONTIERS OF MIXED REALITY

Into the Unknown This talk is about what it feels like to be a bot developer on the cutting edge of putting AI into bot brains. A bit like the fictional Frankenstein project, my team injects the organic, voice-based personality of an avatar into a Mixed Reality shape: be it a hologram, a robot, a VR or AR experience. Amalia, our first public facing pilot in a shopping centre in Cologne proactively made shopping suggestions and gave tips on where to get nice gifts. I will present findings from our experiment featuring Amalia's growing sense of humor.

Target Audience: Anyone and Everyone

Prerequisites: None

Level: Practicing

Tania Peitzker is an Australian-German with a doctorate in Anglistik from the University of Potsdam, she's now an Associate Professor for AI management at the IAE Graduate Business School in Nice, University of the Cote d'Azur. Tania is the co-owner of vel-mai.com, an AI bot hologram tech venture for 2D and 3D bespoke avatars, and has been a keynote speaker at CeBIT, the London Mayor's Tech Week, Bot World/Apps World, the New Yorker UTTR Chatbots & AI Conference in London, TECHXL8 and at the Applied Machine Learning Days at the EPFL in Lausanne, Switzerland.



Wednesday 9:45 am – 10:30 am Mi 5.1

INDUSTRIAL AI ENABLES DIGITAL COMPANIONS

Into the Unknown AI has a rapidly growing presence in today's world, with applications ranging from heavy industry to education. From accelerating plant operations to information access there are many examples illustrating how digital companions enabled with AI have the potential to fundamentally change many aspects of our daily life; especially when it comes to the way we as humans interact with our environment and the workplace. This talk will explore how we can realize intelligent digital companions for enhanced industrial products, services and solutions.

Target Audience: People interested in applied AI in industrial domains

Prerequisites: Basic understanding of industrial data driven applications

Level: Practicing



Rebecca Johnson, Research Group Head at Siemens Corporate Technology. Her research focus is AI where she is currently working on Digital Companion technologies and Generative Design. Rebecca originally studied Media Management with focus on Internet production and spent numerous years working as technical architect in internet agencies leading web-, social and mobile projects.

Siggi Duell is an Entrepreneur and Innovation Catalyst at Siemens Corporate Technology, driving new digital businesses with data and intelligent algorithms. He has a technical background in bioinformatics, research experience in machine learning and a track record in realizing digital services and solutions in Siemens.



Wednesday 11.00 am – 11.45 am Mi 1.2

FUNCTIONAL ARCHITECTURE IN ACTION

Modern Architecture – Known & Unknown Functional Architecture is architecture based on functional programming, which is quite different from traditional OO architecture. This talk highlights common aspects of applications that highlight those differences: functional UI programming, functional database programming and functional I/O.

Target Audience: Architects, Developers | **Prerequisites:** Basic OO knowledge | **Level:** Practicing

Michael Sperber is CEO of Active Group in Tübingen, Germany. Mike specializes in functional programming, and has been an internationally recognized expert in the field: He has spoken at the top conferences in programming languages, authored many papers on the subject as well as several books. Moreover, he is an expert on teaching programming.



Wednesday 11.00 am – 11.45 am Mi 6.2

OPEN SOURCE IS FEEDING THE WORLD

Fusion: IT-Future-Society About 80% of all the software needed can be developed collaboratively and shared. We strongly believe that it helps to develop modern stacks at lower cost, to allow faster deployment, and to enable our ecosystems to compete with bigger and more advanced industry players. The Eclipse Foundation has developed a collaborative model that helps organizations to jointly innovate and save cost and resources. This talk gives an overview over success patterns on real collaboration examples.

Target Audience: Manager, Entscheider

Prerequisites: Open Source, Projekterfahrung

Level: Practicing

Ralph Müller is currently the Managing Director of the Eclipse Foundation Europe GmbH, a wholly owned subsidiary of the Eclipse Foundation Inc., responsible for supporting the Eclipse open-source community and commercial ecosystem in Europe. Prior to joining Eclipse in 2005, Ralph Müller has worked for Vector Informatik, IBM, Object Technology International and Siemens-Nixdorf.



Wednesday 11.00 am – 11.45 am Mi 8.2

READY FOR RUST

Modern Programming & C++17/C++20 In the StackOverflow developer survey Rust has been the „most loved“ programming language for three years in a row (2016-2018). Time to see why Mozilla's creation is so popular. In this talk you'll encounter examples of Rust that show the core features of this modern language. As someone who has worked in a number of programming languages Erik will highlight what makes Rust special, which includes its approach to memory management and safety. You'll also get a glimpse of the growing ecosystem of tools and libraries around Rust.

Target Audience: Developers, Architects, IT Decision Makers

Prerequisites: Knowledge of programming languages, the more the better ;-)

Level: Practicing

Erik Dörnenburg is a software developer and Head of Technology at ThoughtWorks, where he helps clients with creating custom software. Over the years Erik has worked with many different technologies and technology platforms, always curious to understand the potential they offer to solve real-world problems. His career began in the early nineties and throughout he has been an advocate of agile values and open source software.



Wednesday 2.30 pm – 3.30 pm Mi 4.3

PRODUCT DEVELOPMENT FLOW – HOW TO SCALE BEYOND 20 DEVELOPERS

Business Agility Product development is pretty much jammed up in most organisations beyond 20 and adding more developers or teams to the company often results in slow down and chaos. Like a car that chokes when hitting the accelerator. But there are rare examples, where teams collaborate and produce a regular and scalable output of new features. This can only be achieved by radically re-organising, ensuring management collaboration and distributing responsibilities to experts. And by forgetting most of the old and dysfunctional management paradigms.

Target Audience: Management in Product Development and IT and also future Management. And everyone... | **Prerequisites:** Having seen real slow and dysfunctional product development and IT | **Level:** Introductory



Johannes Mainusch is one of the founders of *kommitment*, a democratic and participatory company. that consults where change is needed and wanted. Previously, he worked at Lufthansa, XING, OTTO and EPOST and learned about refactoring IT and organisations.

Benjamin Wiedenmann ist Soziologe und hat als Manager Erfahrung als Gestalter von Transformationsprozessen im Konzernumfeld gesammelt. Er berät Manager und Mitarbeiter auf Augenhöhe – denn nur wenn alle verstehen, warum die Veränderung notwendig ist, kann auch das Wie gelingen.



Wednesday 2.30 pm – 3.30 pm Mi 5.3

PUTTING HUMANS BACK IN THE LOOP: USING AR AND VR EFFECTIVELY IN INDUSTRIAL SYSTEMS

Into the Unknown Immersive technology, used right, creates an almost symbiotic interaction between people and machines. We can build systems that use the best of both worlds: human intelligence and AI, robotic strength and human dexterity, human experience and machine learning. But how do we go about this? How can we design the tasks and interactions so that they work for people? Is a person with an AR headset a better robot? We may be able to build the matrix within the next two decades... Do we want to? How can you use immersive technology best today?

Target Audience: Anyone interested in AR and VR | **Prerequisites:** None | **Level:** Introductory

Asa MacWilliams is Portfolio Manager for AR and VR at Siemens Corporate Technology. He has been building distributed interactive systems for 20 years, and built one of the first distributed Augmented Reality systems at TU Munich in the year 2000.



Wednesday 2.30 pm – 3.30 pm Mi 7.3

A BUMPY ROAD... ENTERPRISE DELIVERY APPROACHES IN A VUCA WORLD

Product Discovery, Innovation & User Experience An insider's view and experience report on the journey of ING Bank to 'agilize' Business planning and Portfolio Management: In a VUCA world, how does a big and complex organisation like ING align on valuable outcome? How is Enterprise Architecture planning integrated? How do the 'Quarterly Business Planning Process' and the 'Obeya' concept support planning and tracking? What is the role of Leadership? We will explain key concepts from ING's One Agile Way of Working and share experiences and lessons learned in ING's IT and non-IT departments.

Target Audience: Manager, Executive, Transformation Lead, Agile Coaches, Product Owners
Prerequisites: None | **Level:** Practicing



Eric Abelen is Agile Enterprise Coach at ING Netherlands and Belgium with enterprise agile transformation experience in HR, Support functions and (IT driven) delivery organisations. Eric works for ING Bank as of 2010, in role of Lean Consultant, Operational Management Coach, and Agile Coach, which roles he approaches from a systemic organizational development perspective.

Annemiek Quirijns is Agile Enterprise Coach at ING Netherlands and Belgium with Agile Enterprise Transformation, Obeya coaching and Senior Leadership Coaching experience. Annemiek works for ING Bank as of 2010, since 2015 in role of Agile Coach.



Wednesday 5.00 pm – 6.00 pm Mi 5.4

BUILDING EVOLUTIONARY ARCHITECTURES

Into the Unknown Understanding how to evolve architecture requires understanding how architectural dimensions interact; I describe how to achieve appropriate coupling between components and services. Incremental change is critical for the mechanics of evolution; I cover how to build engineering and DevOps practices to support continuous change. Uncontrolled evolution leads to undesirable side effects; I cover how fitness functions build protective, testable scaffolding around critical parts to guide the architecture as it evolves.

Target Audience: Architects and aspiring Architects
Prerequisites: Knowledge of basic modern architecture styles and engineering practices such as DevOps | **Level:** Practicing

Neal Ford is Director, Software Architect, and Meme Wrangler at ThoughtWorks, a software company and a community of passionate, purpose-led individuals, who thinks disruptively to deliver technology to address the toughest challenges, all while seeking to revolutionize the IT industry and create positive social change. He is an internationally recognized expert on software development and delivery, especially in the intersection of agile engineering techniques and software architecture.



Wednesday 5.00 pm – 6.00 pm Mi 7.4

COMMUNITY BASED BUSINESS MODELS

Product Discovery, Innovation & User Experience The source of power in business is consumption – which tends to be exploited by business models so far. But what happens if an entrepreneur organizes a community of consumers so that it can exercise its power deliberately? This community can shape its offer and pull goods directly from suppliers which saves cost and risk while offering room for creativity. Fairness and transparency play a fundamental role. What is a real life example? How can I draft such a business model? What are risks and challenges? Please be invited to learn about all this.

Target Audience: Founders, Start-ups, Managers, Deciders

Prerequisites: None | **Level:** Introductory

Wednesday 5.00 pm – 6.00 pm Mi 8.4

THOUGHTS ON LEARNING A NEW PROGRAMMING LANGUAGE

Modern Programming & C++17/C++20 How should we teach a new language to folks that already know how to program?

How do we use what we already know to leapfrog the learning process?

Based on my personal experience and snippets of natural language theory, we will try to explore the cheats and pitfalls when learning a new programming language, but also dig into how we can make it easier.

Target Audience: Developers, Textbook Authors, Teachers

Prerequisites: Programming experience

Level: Practicing

TALKS THURSDAY

Thursday 9.00 am – 10.30 am Do 5.1

UNREASONABLE ARCHITECTURE

Into the Unknown What if modelarity and modularity does not exist in the design or in the domain of a software system? What if the failure modes of software are not based on mechanisms structured for our understanding? Whether we are talking optimising compilers, machine learning, quantum computing or the messy interactions of software with people and other systems, not everything about the software is reasonable or can be reasoned about. We have entered an era where many of the certainties we hold about good practice may no longer hold.

Target Audience: Architects, Developers

Prerequisites: Software design and programming practices

Level: Practicing

Thursday 11.00 am – 11.45 am Do 3.2

RETROSPECTIVES TO THE NEXT LEVEL: ORGANIZATIONAL AGILITY

Trends & Techniques Agile Retrospectives can be used to deal with problems in teams, at a project or product level, or those related to the collaboration between the team and stakeholders. But you need a different approach compared to team level retrospectives to do organizational-wide improvement.

This session shows how to use agile retrospectives to reveal and solve systematic organizational problems and to increase the company's agility It explores different approaches, formats, and techniques for agile retrospectives that are done beyond the development team.

Target Audience: Managers, Teams, Scrum Masters, Agile Coaches, Tech Leads

Prerequisites: At least some experience with team/organizational improvement

Level: Practicing

Nils Seesing was born in 1974 in Germany. After graduation in architecture he had his first job at MUC airport terminal 2 until 2002. Since then he did a 2 year study of economy at the TU-Munich, he worked in logistics, financial controlling and as a business innovation trainer. Today he is a Scrum Master at Infineon Technologies AG as he is passionate for self-organization since he met the Premium-Cola Collective in 2013 first time. Nobel Price winner Mohamad Yunus' autobiography inspired him for business models.



Patricia Aas is a programmer who has worked mostly in C++ and Java. She has spent her career continuously delivering from the same code-base to a large user base. She has worked on two browsers (Opera and Vivaldi), worked as a Java consultant and on embedded telepresence endpoints for Cisco. She is focused on the maintainability and flexibility of software architecture, and how to extend it to provide cutting edge user experiences. Her focus on the end user has led her work more and more toward privacy and security. She is involved in the Include C++ organization hoping to improve diversity and inclusion in the C++ community.



Frank Buschmann is Senior Principal Engineer at Siemens Corporate Technology in Munich. Focus of his work are innovative software architecture and development approaches for industrial digitalization. Frank also supports product development at Siemens in the efficient application of these technologies.

Kevin Henney is an independent consultant, speaker, writer and trainer. His development interests are in patterns, programming, practice and process.

Ben Linders is an Independent Consultant in Agile, Lean, Quality, and Continuous Improvement. As an adviser, trainer, and coach, he helps organizations with effectively deploying software development and management practices. He focuses on continuous improvement, collaboration and communication, and professional development, to deliver business value to customers. Ben is an active member of networks on Agile, Lean, and Quality, and a well-known speaker and author.



Thursday 11.00 am – 11.45 am Do 4.2

VARIETY: THE SPICE OF LIFE AND THE SECRET TO SCALE

Business Agility What if negative organizational consequences of scale eg silos, frustrating bureaucracy, etc. are actually a consequence of attempting to scale the size of an organization without also scaling the amount of tolerable variety (in practices, processes, etc.)? What if we should be doing more than just tolerating variety? What if increased space for (and decreased cost of) variety is a reason to scale, not a curious byproduct? This session provides an approach for incurring variety where it makes sense within the coherence of a longer-term vision.

Target Audience: Architects, Scrum Masters, Agile Coaches, Tech Leads, Managers

Prerequisites: Basic knowledge of Agile and DevOps

Level: Practicing

Thursday 11.00 am – 11.45 am Do 5.2

ELECTIONS: TRUST AND CRITICAL INFRASTRUCTURE

Into the Unknown Free and correct elections are the linchpin of democracy. For governments to be formed based on the will of people, this will must be heard. World-wide, election systems are classified as critical infrastructure, and they face the same concerns as all other fundamental systems in society. We're building our critical infrastructure from hardware & software built by nations and companies we can't expect to trust. How can this be dealt with in Election Security, and can those lessons be applied to other critical systems society depends on today?

Target Audience: Architects, Developers, Project Leader, Manager, Decision Makers

Prerequisites: Basic knowledge about system security

Level: Practicing

Thursday 11.00 am – 11.45 am Do 6.2

ETHICAL DECISIONS IN A WICKED WORLD: THE ROLE OF TECHNOLOGISTS, ENTREPRENEURS, AND ORGANIZATIONS

Fusion: IT-Future-Society Software is a key component of solutions for 21st Century problems (as sustainability problems). These problems are often "wicked", complex, and unpredictable. To provide the best possible solution, software engineers must be prepared to make ethical decisions, thinking critically, and acting systematically. Do we understand the ethical choices and related unintended consequences that these solutions might generate? This talk is a reflection on how we can build new capabilities (and maybe unlearn some) to make sense of world challenges.

Target Audience: Technologists in general, Leaders, Entrepreneurs, Change Makers, Students

Prerequisites: None | **Level:** Introductory

Thursday 2.30 pm – 3.30 pm Do 5.3

MODERN MANAGEMENT: ADAPT HOW YOU LEAD FOR AGILE SUCCESS

Into the Unknown Agile approaches have downplayed the role of management. Too many people say, "We don't need no stinkin' managers." On the contrary. We need managers to create and refine the agile culture and create leadership capability across the organization. Without modern management, any agile transformation dies a quick and ugly death. Instead, it's time to invite managers to change their behaviors to transform to an agile culture. Learn to see and create management excellence for your agile culture.

Target Audience: Managers who want to take advantage of agile approaches, anyone in the middle of a transformation | **Prerequisites:** A year or more working as a manager

Level: Practicing

Cat Swetel is an engineering manager with experience applying Agile and lean principles in a variety of settings: from start-ups to large enterprises, warehouses to web, etc. She is passionate about increasing diversity in tech. In her leisure time, Cat enjoys making jokes about Bitcoin, hiking, and reading feminist literature.



Patricia Aas is a programmer who has worked mostly in C++ and Java. She has spent her career continuously delivering from the same codebase to a large user base. She has worked on two browsers (Opera and Vivaldi), worked as a Java consultant and on embedded telepresence endpoints for Cisco. She is focused on the maintainability and flexibility of software architecture, and how to extend it to provide cutting edge user experiences. Her focus on the end user has led her work more and more toward privacy and security. She is involved in the Include C++ organization hoping to improve diversity and inclusion in the C++ community.



Claudia Melo is a Software Engineer/Enterprise Agile Coach with the International Atomic Energy Agency. She is also Advisory board member at Mulheres na Tecnologia. She has been working in the software industry since 2000, delivering software to different industries (e.g. Financial, Media, Government), teaching grad/undergrad students, and also conducting research on agile teams and organizations, team productivity and dynamics, motivation, and trust. She was previously ThoughtWorks' Global Head of Learning & Development and ThoughtWorks' CTO for Latin America. Claudia received her Ph.D. in Computer Science from the University of São Paulo, in collaboration with the Norwegian University of Science and Technology.



Johanna Rothman, known as the "Pragmatic Manager," provides frank advice for your tough problems. She helps leaders and teams see problems, resolve risks, and manage their product development. Johanna speaks and writes about all aspects of project management and management that incorporate agile approaches. See her newsletters and blogs at jrothman.com and createadaptabliflife.com.



Thursday 5.00 pm – 6.00 pm Do 5.4

REACTIVE SYSTEMS

Into the Unknown 21st Century problems cannot be solved with 20th Century architectures. So why so many projects build on a monolithic, three-layer architecture sat on top of a RDBMS? Modern systems are distributed, deal with massive throughput of data and transactions. Users expect 24/7 service. The Reactive Manifesto describes what it takes to build systems that meet these demands. They are Responsive, Resilient, Elastic and Message Driven. This presentation will introduce these ideas and describe how systems built on these principles work.

Target Audience: Architects & Technical Leaders, Lead/Senior Developers

Prerequisites: None

Level: Practicing

Thursday 5.00 pm – 6.00 pm Do 7.4

STATE OF ART CONTINUOUS COMPLIANCE – AN OVERVIEW

DevOps & Continuous Everything Compliance to regulatory, legal, contractual and company policies is a fundamental requirement of today's software. Being not compliant exposes you to risks and – in case – may render you incapable of delivering on schedule. Why not continuously check compliance of your software? What are the general requirements? What tools exist and what are initiatives like ClearlyDefined and OpenChain all about? We give an overview on the state of art of continuous compliance and elaborate on Compliance-By-Design as paradigm for software development.

Target Audience: Architects, Developers, Product Managers, Development Leaders, CEOs

Prerequisites: None | **Level:** Introductory

Thursday 5.00 pm – 6.00 pm Do 8.4

C++ INSIGHTS: HOW STUFF WORKS, LAMBDA'S AND MORE!

Modern Programming & C++17/C++20 With the help of C++ Insights we'll dive into how things work in C++, through the eyes of the compiler. We'll look at cases like implicit conversions and in-class initializers. We'll also walk through how the compiler generates lambdas and explore why you might care. And of course this is C++ so it would be remiss of us not to also take a peek at one of our favourite C++ features: variadic templates! Welcome to the compiler's world with C++ Insights, and at the very least come away from the talk with a whole new way of looking at the code you write!

Target Audience: Entwickler, Developers

Prerequisites: C++

Level: Practicing

TUTORIALS FRIDAY

Friday 9.00 pm – 4.00 pm Fr 1

ADVANCED DEPLOYMENT PIPELINE TECHNIQUES

Full Day Tutorial The Deployment Pipeline is a central concept in Continuous Delivery. It represents an effective, controlled channel through which all changes destined for production pass. A defining objective in CD is to work so that our software is always in a "releasable state". By applying high levels of automation to our development process, in the form of a Deployment Pipeline, we pass all changes to our production systems through this channel and evaluate them prior to release. This means that the pipeline quickly becomes a strategic resource. As our use of this important tool grows, the performance of the pipeline, in terms of the rapidity with which it can give valuable feedback on the quality of your work, becomes a central concern.

Target Audience: Developers, Tech Leaders, Operations People, Managers | **Prerequisites:** Familiarity with Continuous Delivery concepts and practice | **Level:** Expert

Dave Farley is a thought-leader in the field of Continuous Delivery, DevOps and Software Development in general. He is co-author of the Jolt-award winning book "Continuous Delivery", a regular conference speaker and blogger and one of the authors of the Reactive Manifesto. Dave started working in large scale distributed systems more than 25 years ago, doing research into the development of loose-coupled, message-based systems – a forerunner of Microservice architectures.



Karsten Klein is founder of metaeffekt GmbH in Heidelberg, Germany. In his professional career Karsten gained in-depth insights in compliance of software development in agile settings.



Thomas Schulte is Senior Consultant at metaeffekt GmbH. He is an experienced project and compliance manager with a dedication to high quality software assessments.

Andreas Fertig is an independent trainer and consultant for C++ specializing in embedded systems. Since his computer science studies in Karlsruhe, he has dealt with embedded systems and the associated requirements and peculiarities. He worked for about 10 years for Philips Medizin Systeme GmbH as a C++ software developer and architect with focus on embedded systems. He also develops macOS applications and is the author of cplusplus.io.



Dave Farley is a thought-leader in the field of Continuous Delivery, DevOps and Software Development in general. He started working in large scale distributed systems, doing research into the development of loose-coupled, message-based systems – a forerunner of Microservice architectures. Dave was an early adopter of agile development techniques, employing iterative development, continuous integration and significant levels of automated testing. Dave is the former Head of Software development at LMAX Ltd, home of the OSS Disruptor, a company that are well known for the excellence of their code and the exemplary nature of their development process. Dave is now an independent software developer and consultant, and founder and director of Continuous Delivery Ltd.



NIGHTSCHOOLS

Nightschools please book separately. The 5-day + ticket includes Nightschools on all three evenings.

Monday 6.30 pm – 8.00 pm Nmo 3

ENGAGED STRATEGY DEVELOPMENT USING LIBERATING STRUCTURES

Trends & Techniques As an (enterprise) architect, you develop strategies to help the organisation become more successful and stay ahead. How will the organisation as a whole work and grow? Your work is all about strategy! And how often do you face resistance to new ideas? Or are strategic decisions in your company implemented top-down, which is rather inconvenient for something as complex as strategy? This session will show you the value of Liberating Structures hands-on, also aiming to involve and engage everyone in strategy work everywhere in the organisation.

Target Audience: Enterprise Architects, Managers, Decision Makers

Prerequisites: None | **Level:** Introductory

Maryse I. Meinen is a (mindful) scrum master and lean / agile coach for teams and managers, helping them to improve a bit every day. She is a rebel at work and a big fan of Liberating Structures to make sure all voices get heard and thus unleashing organisational superpower. To Maryse lean and agile philosophy are a way of life and convinced that many agile ideas are valuable to our own everyday life, she is currently writing her first book „agile for life“.



Monday 6:30 pm – 8.00 pm Nmo 5 Nmo 5

GROWING LEADERSHIP AGILITY – INTENT & UNDERSTANDING TO AVOID AGILE TRANSFORMATION FAILURE

Social Integration Whatever transformation a business is after, chances are high, it will fail due to lack of a cultural fit and respective management support. In this session you will learn about the keys, you can directly pursue yourself, for successfully fostering any organizational transformation. It is about intent, awareness and the emphasize on leadership agility. Experience via a validated and concise approach together with hands-on cases, what it takes to thrive in transformation without excuse for change not to stick.

Target Audience: Line Management & Leaders from any hierarchical level, Change Agents, Coaches | **Prerequisites:** Involved with or inspired by organizational transformation

Level: Introductory

Mike Leber is an international Executive Consultant and Agile Coach with more than 25 years experience in the field. His work is dedicated to new types of Adaptive Organizations, fit for the 21st century, delivering awesome products and services. He has been working with large international groups as well as in the start-up domain. Together with his clients he designs innovative and collaborative spaces for delivering fresh business models. He regularly speaks at international conferences and events, where you can meet him across the globe. Get in touch, if you like to take a step towards fresh approaches for management, leadership, service delivery and change.



Wednesday 6.30 pm – 8.00 pm Nmi 5

SOFTWARE IS EATING THE WORLD – EVEN OUR JOBS?

Into the Unknown Digitalization will fundamentally change our working world. Many jobs will be killed because Data Analytics, Artificial Intelligence, Machine Learning can – in combination with Advanced Robotics and modern Human Machine Interaction technologies – execute working tasks reliably and economically that in the past were hardly automatable. New jobs will arise but require different skillsets than the ones that disappeared.

Target Audience: Architects, Developers, Project Leader, Manager, Decision Makers

Prerequisites: Basic understanding of Digitalization technologies | **Level:** Practicing

Frank Buschmann is Senior Principal Engineer at Siemens Corporate Technology in Munich. Focus of his work are innovative software architecture and development approaches for industrial digitalization. Frank also supports product development at Siemens in the efficient application of these technologies.



Thursday 6.30 pm – 8.00 pm Ndo 4

STRUCTURE AND INTERPRETATION OF TEST CASES

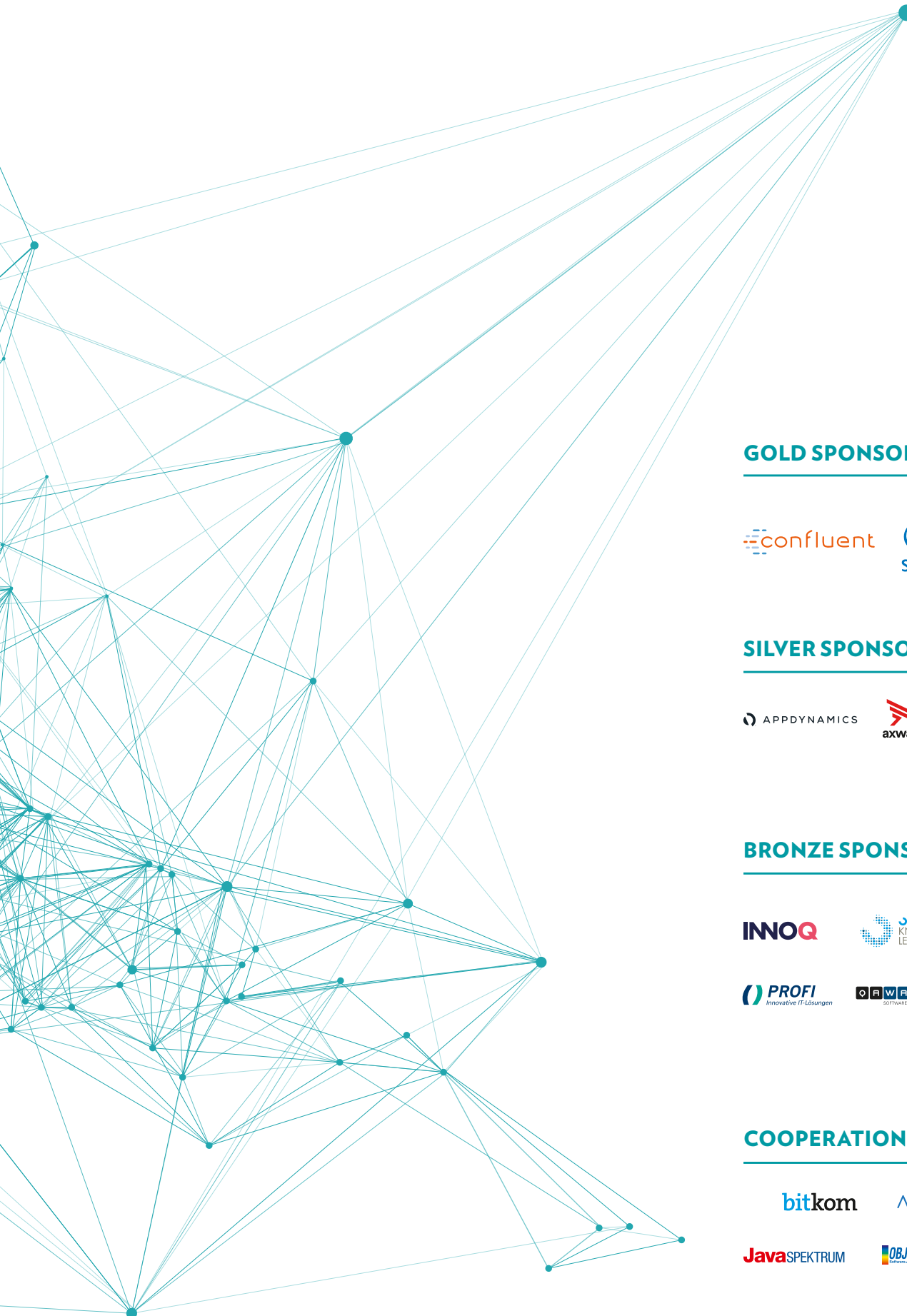
Testing & Quality Throw a line of code into many codebases and it's sure to hit one or more testing frameworks. There's no shortage of frameworks for testing, each with their particular spin and set of conventions, but that glut is not always matched by a clear vision of how to structure and use tests — a framework is a vehicle, but you still need to know how to drive. This talk takes a deep dive into unit testing, looking at examples and counterexamples in different languages and frameworks.

Target Audience: Developers, Architects, Technical Leads | **Prerequisites:** Programming experience, preferably in more than one language, and some unit testing experience | **Level:** Practicing

Kevlin Henney is an independent consultant, speaker, writer and trainer. His development interests are in patterns, programming, practice and process. He is co-author of "A Pattern Language for Distributed Computing" and "On Patterns and Pattern Languages", two volumes in the Pattern-Oriented Software Architecture series, and editor of "97 Things Every Programmer Should Know" and "97 Things Every Java Programmer Should Know".



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